High Technology SMD Digital Mono Block Power Amplifier

NANO 1000.1D

NANO 1500.1D

OWNER'S MANUAL

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INTRODUCTION

Thank you for purchasing the Sound Peak MONO Class-D amplifier.
Rest assured you have purchased a quality product
designed and engineered to give you many years of un compromised musical service.
The Sound Peak MONO Class-D amplifier has been designed using the latest in electronic technology available today. This mono subwoofer amplifier is the result of advanced high speed switching technology that overcomes the less-efficient Class-D design.
The Sound Peak MONO Class-D amplifier reflects your true appreciation for powerful bass reproduction in the mobile environment.
This amplifier is designed for low-frequency information only and it is not capable of reproducing any mid/high-frequency information.
This is due to the noise introduced into the signal by the switching speed of the power supply, which must be filtered out of the audio signal.
The power supply incorporated into MONO amplifier is a DC to DC switching power supply designed to have adequate headroom for even the most demanding peak and dynamic range found on today's Cds and recording.

FEATURES

- **CLASS-D DESIGN**
  Low - frequency information for subwoofer only.
  High efficient power
- **POWER SUPPLIES**
  Stiffly regulated PWM power supplies.
  MOSFET switches maintain rated power over a wide range of battery voltages.
- **LOW PASS FILTER**
  Adjustable from 50Hz to 350Hz with a slope of 24dB per octave.
  This allows for the adjustment of the upper point of the frequency bandwidth and the respective subwoofer.
- **VARIABLE SUBSONIC FILTER**
  Adjustable from 15Hz to 45Hz with a slope of 24dB per octave.
  This allows for the attenuation of frequencies that are mostly inaudible and cause unnecessary strain on the amplifier.
- **PROTECTION CIRCUITRY**
  Protection against thermal, Overload and short circuit conditions.
- **REMOTE DASH-MOUNT GAIN CONTROL**
  This amplifier come complete with a compact remote GAIN CONTROLLER which can be conveniently mounted on or under the dashboard of your car.

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FEATURES & CONTROLS

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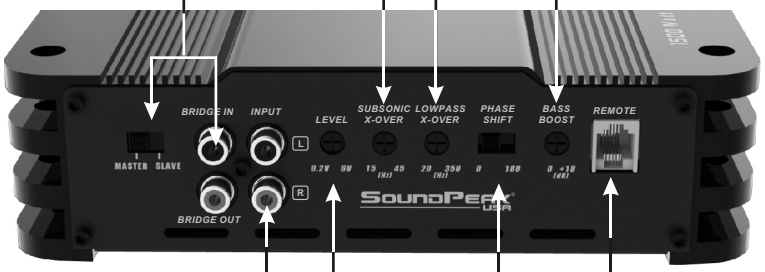
LOW PASS FILTER
When Crossover Mode Selector is in Low Pass Mode, this control limits the frequencies which will be distributed to the speakers to those below the value to which this is set within the range 50 Hz - 350 Hz.

VARIABLE SUBSONIC FILTER
: 15Hz~45Hz

BRIDGED MODE

BASS BOOST CONTROL
Increases sound level in lower frequencies by 18dB.



REMOTE LEVEL CONTROL INPUT

INPUT RCA JACKS
These inputs are for signal cables from the source.
Always use high quality shielded RCA cables.

PHASE SHIFT CONTROL
Allows you to change the phase of your subwoofer from 0 to 180 degrees to help compensate for timing differences between drivers.

INPUT LEVEL CONTROL
Enables the matching of input levels to the output levels from the head unit(or other signal source).

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FEATURES & CONTROLS

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SPEAKER TERMINAL.

POWER & PROTECTION INDICATORS
Provide instant information on status of amplifier, including short-circuit and thermal overload alerts.

SPECIFICATION

	NANO 1000.1D	NANO 1500.1D
RMS at 4 Ohms	300 Watts	500 Watts
RMS at 2 Ohms	600 Watts	900 Watts
RMS at 1 Ohms	1000 Watts	1500 Watts
T.H.D 4 Ohms Power	0.5 %	0.5 %
Signal to Noise Ratio (4 Ohm)	90dB	90dB
Frequency Response	10Hz to 250Hz	10Hz to 250Hz
Speaker Impedance	1 Ohm	1 Ohm
Low Pass Filter	50Hz ~ 350Hz	50Hz ~ 350Hz
Variable Subsonic Filter	15Hz ~ 45Hz	15Hz ~ 45Hz
Variable Bass Boost Control	0 ~ +18dB	0 ~ +18dB
Phase Shift Control	0 ~ 180 degrees	0 ~ 180 degrees
Input Sensitivity	200mV~6V	200mV~6V
Dimensions(inches) W x H x L	8.11" x 2.12" x 7.87"	8.11" x 2.12" x 10.24"

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INSTALLATION & PRECAUTIONS

INSTALLATION

1. Find a suitable location in the vehicle to mount the amplifier.
2. Make sure there is sufficient air flow around the intended mounting location.
3. Bolt the amplifier to the mounting surface.
4. Connect the power ground terminal to the nearest point on the chassis of the car. Keep this ground wire less than one meter (39") in length. Use 4 gauge or 0 gauge wire.
5. Connect the remote terminal to the remote output of the head unit using 14 gauge.
6. Connect an empty fuse holder within 300mm (12") of the battery and 4 gauge or larger high quality cable from this fuse to the amplifier location.
7. Make sure there is no fuse in this fuse holder. Then make the connection to the "BATT" connection on the amplifier.
8. If multiple amplifiers are being used, use cables (each with its own fuse at the battery) or a #0 or a #2 cable from the fuse holder at the battery to a distribution block at or near the amplifier's location.
9. Connect all line inputs and outputs using high-quality RCA-RCA cables.
10. Insert fuse(s) at the battery fuse holder(s).
11. Recheck all connections before powering up.
12. Set all level controls to their least sensitive positions and set all crossover controls, switches, etc. to the desired frequency or position.
13. Once the system is powered up, set the volume control on the head unit to about the 2 o'clock position, and then set all the amplifiers' level controls for maximum output level.
14. Further fine tuning of the various controls may be necessary to obtain the desired results.

PRECAUTIONS

1. Before you drill or cut any holes, investigate your car's layout very carefully. Take care when u work near the gas tank, fuel lines, hydraulic lines and electrical wiring..
2. Do not operate the amplifier when it is unmounted. Attach all audio system components securely within the automobile to prevent damage, especially in an accident
3. Do not mount this amplifier so that the wire connections are unprotected or in a pinched condition, or likely to be damaged by nearby objects. Be sure to select a location inside your vehicle which has adequate ventilation..
4. Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.
5. If you need to replace the power fuse, only replace it with a fuse identical to that supplied with the system. Using a fuse fo a different type or rating may result in damage to your system which isn't covered by the manufacturer's warranty.

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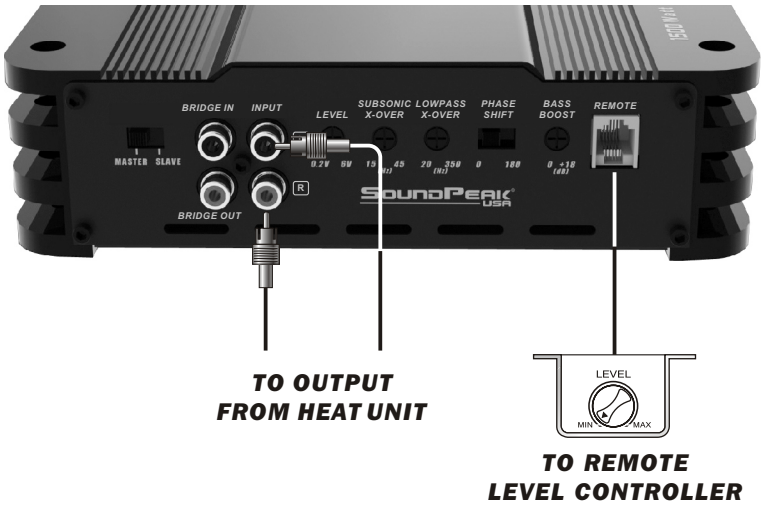
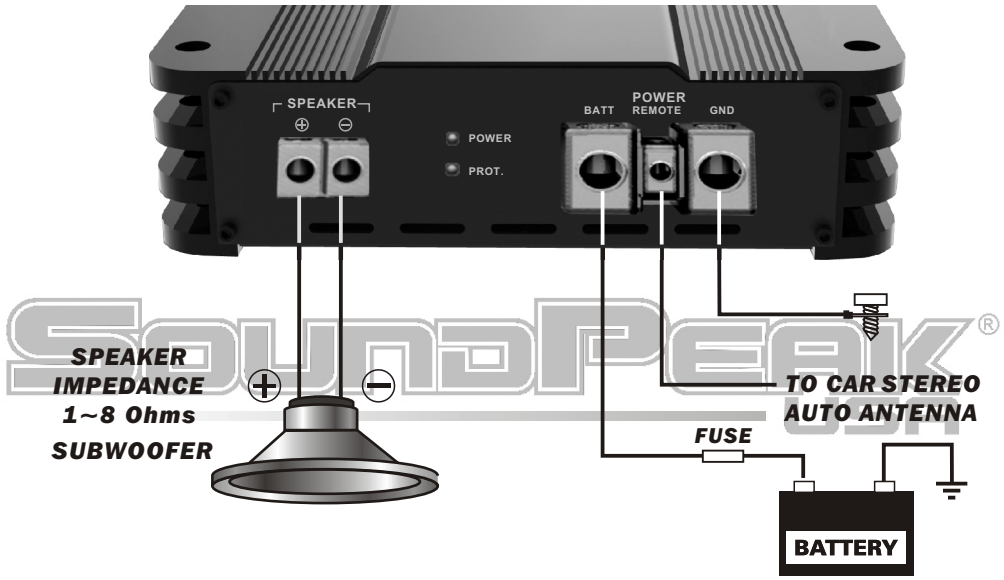
SYSTEM WIRING

NANO 1000.1D / 1500.1D

FRONT



REAR



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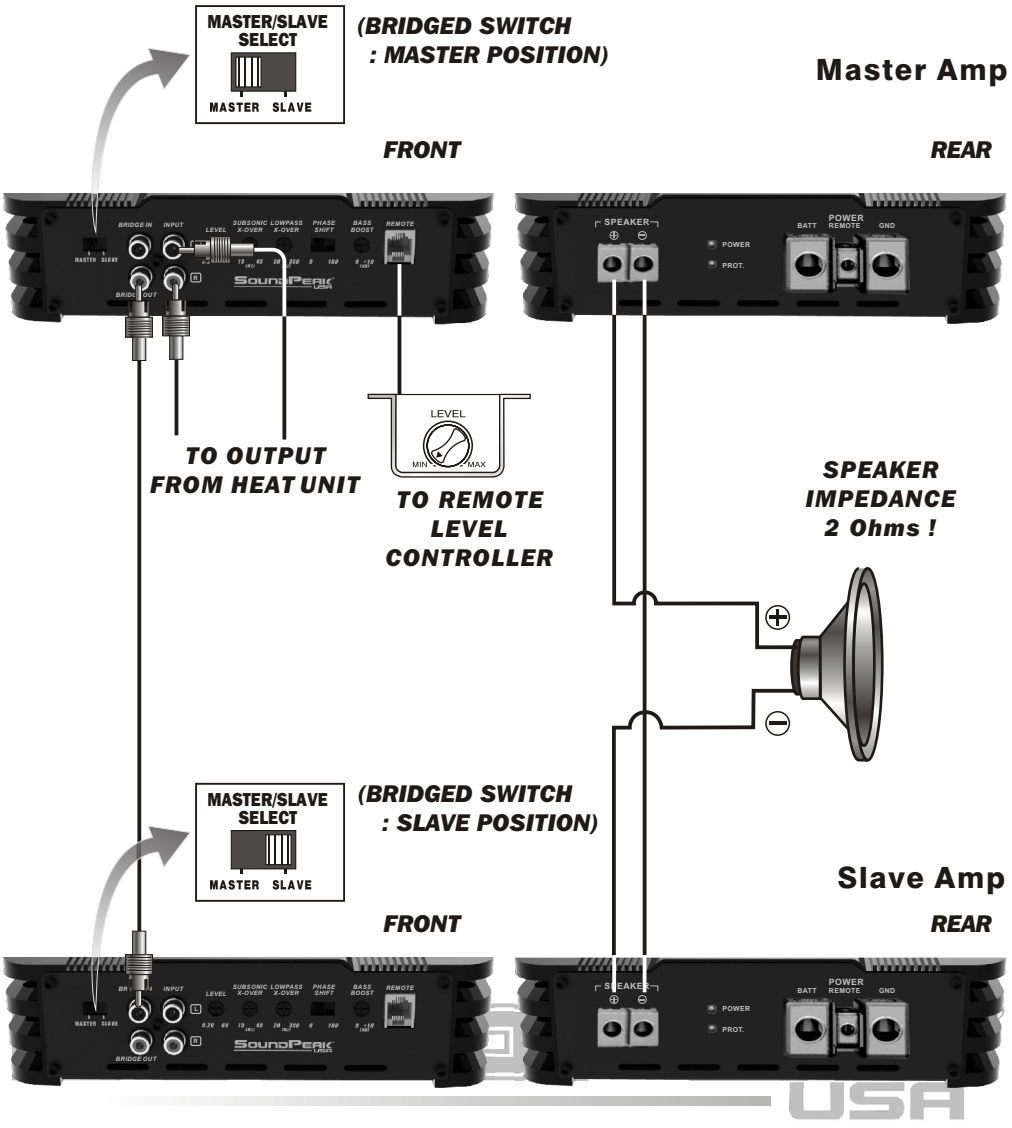
BRIDGING TWO AMPLIFIER



Bridging two amplifiers can be done only between two amplifiers of the same model number.

TROUBLESHOOTING

Amplifier will not power up.

- Check for good ground connection.
- Check that remote DC terminal has at least 3V DC.
- Check that there is battery power on the + terminal.
- Check all fuses.
- Check that Protection LED is not lit. If it is lit, shut off amplifier briefly and t hen repower it.

High hiss or engine noise (alternator whine) in speakers.

- Disconnect all RCA inputs to the amplifier(s)-if hiss/noise disappears, then plug in the component driving the amplifier and unplug it's inputs. If hiss/ noisedisappears, go on until the faulty/noisy component is found.
- It is best to set the amplifier's input level as low as possible. The best subjective S/N ratio is obtainable this way. Try to drive as high a signal level from the head unit as possible.

Protection LED comes on when the amplifier is powered up.

- Check for shorts on speaker leads.
- Check that the volume control on the head unit is turned down low.
- Remove speaker leads, and reset the amplifier. If the Protection LED still comes on, then the amplifier is faulty.

Amplifier(s) gets very hot.

- Check that the minimum speaker impedance for that model is correct.
- Check for speaker shorts.
- Check that there is good airflow around the amplifier. In some applications, an external cooling fan many be required.

Distorted Sound

- Check that the Level control(s) is set to match the signal level of the head unit.
- Check that all crossover frequencies have been properly set.
- Check for shorts on the speaker leads.

High squeal noise from speakers.

- This is almost always caused by a poorly-grounded RCA patch cord.

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